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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,181	03/05/2002	Subodh A. Samuel	015190-0002 (B73713)	7558

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EXAMINER

TRUONG, LAN DAI T

ART UNIT PAPER NUMBER

2132

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,181

Applicant(s)

SUBODH A. SAMUEL

Examiner

lan dai thi trung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim rejections-35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8, 10-11, 13-15, 17 are rejected under 35 U.S.C 103(a) as being un-patentable over Miller et al. (U.S. 5,920,701) and Crowle (U.S. 5,857,072)

Regarding to claim 1, which is exemplary of claims 2, 8, 10 and 11:

Miller discloses the invention substantially as claimed, including a method and system which can be implemented in computer hardware or software code for distributing software, comprising:

Distributing a message from an application server to one or more application layer routers ("computer file" which is equivalent to "message" could be transmitted over one or more "replicate servers" what are equivalent to "application layer routers" according to the schedule: abstract, lines 1-4; column 4, lines 36-67). But Miller does not explicitly teach method of using publish and subscribe architecture to one or more first channels selected from a first channel layer; and distributing the message to an endpoint using the publish and subscribe architecture to one or more second channels selected from a second channel layer.

However Crowle discloses in wide-area network configuration, a master server distributes files to sub-servers in location administrative LANs via “routers” what are equivalent to “first channels”. Sub-server then distributes the files to all “client locations” what are equivalent to “endpoints” at their respective sites via “bridges” which are equivalent to “second channel”, see (Crowle: column 10, lines 29-42; fig 3, items 60, 66, 68, 63, and 65).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Crowle’s ideas of distributing files from master server to end user through “routers” which is equivalent to “first channels” and “bridges” which is equivalent to “second channel” with Miller’s system in order to provide higher transfer rate, see (Miller: column 3, line 14).

Regarding to claim 3:

In addition to rejection in claim 1, Miller-Crowle further discloses wherein the first channel and the second channel are selected by the application server (“a network resource scheduler” which is equivalent to “application server” that schedules data to be transmitted over one or more replicate servers: Miller: column 4, lines 35-59).

Regarding to claim 13:

In addition to rejection in claim 11, Miller-Crowle further discloses wherein the application server further comprises an event based sequencing system transmitting the message (Crowle discloses each “network location” which is equivalent to “endpoints” responses an IVE-GOT message providing specifics about the data it currently contains. The “data server” which is equivalent to “application server” then uses the data returned

from the network location to determine whether all appreciate locations received the data, and start a new data distribution cycle: column 7, lines 18-31).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Crowle's ideas of responding an IVE-GOT message providing specifics about the data it currently contains with Miller's system in order to perform data distribution cycle.

Regarding to claim 14:

In addition to rejection in claim 11, Miller-Crowle further discloses wherein the first application layer router further comprises a router controller storing the message prior to transmitting the message over the first channel: (Crowle discloses "master server" which is equivalent to "controller" therein stores and distributes the "data" which is equivalent to "message" to sub-servers: column 10, lines 29-42).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Crowle's ideas of distributing files from master server to end user through "routers" which is equivalent to "first channels" and "bridges" which is equivalent to "second channel" with Miller's system in order to provide higher transfer rate, see (Miller: column 3, line 14).

Regarding to claim 15:

In addition to rejection in claim 14, Miller-Crowle further discloses wherein the router controller further comprises a message timing system storing the message for a predetermined period of time: (Miller discloses "scheduler" which is equivalent to "timing system" makes the transmission determinations based on such parameter as the time available for transmission to be completed by the requested delivery time and

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transmission priority levels accorded to the request: column 2, lines 1-67; column 3, lines 15-23; column 4, lines 34-67).

Regarding to claim 17:

In addition to rejection in claim 11, Miller-Crowle further discloses a gateway receiving response data from the end point generated in response to the message: (Crowle discloses each “network location” which is equivalent to “endpoints” responses an IVE-GOT message providing specifics about the data it currently contains. The “data server” which is equivalent to “gateway” then uses the data returned from the network location to determine whether all appreciate locations received the data, and starts a new data distribution cycle: column 7, lines 18-31).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Crowle’s ideas of responding an IVE-GOT message providing specifics about the data it currently contains with Miller’s system in order to indicate the status of communication.

Claims 4-7, 9, 12 and 16 are rejected under 35 U.S.C 103(a) as being unpatentable over Miller (U.S. 5,920,701) and Crowle (U.S. 5,857,072), further in view of Kaval (U.S. 6,687,731)

Regarding to claim 5:

Miller-Crowle discloses the invention substantially as disclosed in claim 1, but does not explicitly teach wherein the first channel and the second channel are selected by the application server based on the available data processing capacity of the selected application layer router.

However, Kaval discloses a method of arrangement for load sharing in computer networks and arrangement for distribution of traffic, see (Kaval: abstract, lines 1-5).

Kaval discloses the routing information includes details about the available processor capacity, see (Kaval: column 3, lines 49-55).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kaval's ideas of routing information includes details about the available capacity of each link with Miller-Crowle's systems in order to get the benefit from the lower delay and higher performance, see (Kaval: column 2, lines 7-10).

Regarding to claims 6 and 16:

Miller-Crowle discloses the invention substantially as disclosed in claims 1 and 11, but does not explicitly teach wherein distributing the message to the endpoint further comprises: storing the message at the selected application layer router; and distributing the message to the endpoint using the publish and subscribe architecture to one or more second channels selected from the second channel layer after the occurrence of a predetermined event

However, Kaval discloses the domain name server receives continuously routing information from "servers" which is equivalent to "endpoints" such as details about "the available capacity for each link, the bandwidth of each link, the processor capacity" what are equivalent to "predetermined event", see (Kaval: column 3, lines 48-67; column 4, lines 1-9). Base on this information the domain name server calculates the best route or the route with least delay, see (kaval: column 4, lines 65-67; column 5, lines 3-5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Kaval's ideas of distribution data base on the predetermined event such as available capacity for each link, the bandwidth of each link, the processor capacity with Crowle's system in order to provide the best route or the route with least delay, and getting the benefit from the lower delay and higher performance, see (Kaval: column 2, lines 7-10; column 4, lines 65-67).

Regarding to claim 9:

Miller-Crowle discloses the invention substantially as disclosed in claim 1, but does not explicitly teach wherein determining the sequence comprises determining the sequence base on one or more of the group comprising data communications bandwidth availability between the application server and the endpoint, processing capacity of one or more of the application layer routers, processing capacity of a gateway receiving messages from the endpoint and the application server, and data communications bandwidth availability between the endpoint and the gateway.

However, Kaval discloses a method of arrangement for load sharing in computer networks, arrangement for distribution of traffic and routing policy, see (Kaval: abstract, lines 1-5; column 4, lines 5-9). Kaval discloses the routing information includes details about the available processor capacity and the bandwidth of each link (Kaval: abstract, lines 1-5; column 4, lines 5-9; column 3, lines 49-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Kaval's ideas of distribution data base on the predetermined event such as available capacity for each link, the bandwidth of each link, the processor capacity with Crowle's system in order to provide the best route or the

route with least delay, and getting the benefit from the lower delay and higher performance, see (Kaval: column 2, lines 7-10; column 4, lines 65-67).

Regarding to claim 7, which is exemplary of claim 4:

Miller-Crowle discloses the invention substantially as disclosed in claim 1 further includes comprising an expiration of a timer (The scheduler determines at least the start time and a transfer rate for each of the content sources that can be accommodated. The scheduler creates the distribution schedules based on the requests typically include the size or amount of data to be transmitted, the desired completion time for the data transmission, and bandwidth available at times surrounding for delivery time: Miller: abstract, lines 1-9; column 2, lines 1-10, 38-50).

But does not explicitly teach wherein the predetermined event is one or more of the group comprising receipt of a bandwidth availability message, and receipt of a processor capacity availability message.

However, Kaval discloses a method of arrangement for load sharing in computer networks, arrangement for distribution of traffic and routing policy, see (Kaval: abstract, lines 1-5; column 4, lines 5-9). Kaval discloses the routing information includes detail about the available processor capacity and the bandwidth of each link, see (Kaval: column 3, lines 49-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Kaval's ideas of distribution data base on the predetermined event such as expiration of a timer, available bandwidth and processor capacity availability of each link with Crowle's system in order to provide the best route

or the route with least delay, and getting the benefit from the lower delay and higher performance, see (Kaval: column 2, lines 7-10; column 4, lines 65-67).

Regarding to claim 12:

Miller-Crowle discloses the invention substantially as disclosed in claim 11, but does not explicitly teach wherein the application server further comprises a bandwidth allocation system transmitting the message.

However, Kaval discloses a method of arrangement for load sharing in computer networks, arrangement for distribution of traffic and routing policy, see (Kaval: abstract, lines 1-5; column 4, lines 5-9). The routing information includes detail about the available processor capacity and the bandwidth of each link, see (Kaval: column 3, lines 49-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Kaval's ideas of distribution data base on the predetermined event such as expiration of a timer, available bandwidth and processor capacity availability of each link with Crowle's system in order to provide the best route or the route with least delay, and getting the benefit from the lower delay and higher performance, see (Kaval: column 2, lines 7-10; column 4, lines 65-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to lan dai thi truong whose telephone number is 571-272-7959. The examiner can normally be reached on monday- friday from 8:30am to 5:00 pm.

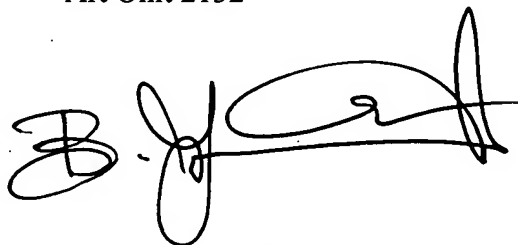
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Dai Thi Truong
Examiner
Art Unit 2132

Ldt
06/21/2005

A handwritten signature in black ink, appearing to read 'Bunjob Jaroenchonwanti', with a stylized, cursive script.

BUNJOB JAROENCHONWANT
PRIMARY EXAMINER